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Research Productivity of Pakistani Authors in Library and Information Science; An Overview of 2019 publications

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ABSTRACT:

Aim: The present study aims is to evaluate the research productivity of Pakistani Library Information Science (LIS) authors produced during the year 2019.

Methodology: The retrospective study technique was used to extract the dataset on LIS literature produced by Pakistani authors, from different online and print sources. The bibliographic information was inserted in Microsoft Excel-2016 for data analysis. The findings of the data have been presented in 3 tables and 2 figures.

Results: Pakistani LIS authors produced 154 documents, and the majority of the documents (n=97; 63%) were published in international journals and 37% of the documents were published inside of the country. Dr. Kanwal Ameen and Department of Information Management, University of the Punjab, Lahore emerged as the most productive author and most prolific institution with 13 and 46 documents respectively. The examination of the authorship pattern revealed that more than one-third (n=59; 38.31%) of the total documents followed the two-author pattern. Pakistan Library & Information Science Journal (n=35; 22.72%) was found a favorite channel of communication, followed by Library Philosophy and Practice (n=25; 16.23%). The research has been conducted on multiple topics, the majority of documents were found on the subject categories of bibliometrics, social media and information seeking behavior.

Conclusion: The launching of LIS doctorate programs and the provision of electronic resources through the National Digital Library of Higher Education Commission in Pakistani universities have a positive impact on the publication growth. There is a need to motivate the practicing information professionals that they should come forward to participate in the research process to improve LIS services.

Keywords: Library and Information Science Research; Pakistan; Research Productivity; Bibliometrics

INTRODUCTION

Pakistan is the 5th largest country in the world and stands in the list of developing countries with a literacy ratio of less than two-third (60%) and hardly 10% of the total population, reached a higher education level (Haq, 2020). The data of researchers per million people in Pakistan exposed that and there are 336 researchers in one million people. This ratio is higher than India (253) but far less than Iran (1,475), Denmark has the highest ratio, 8,066 researchers per million people (World Bank, n.d.).

The development in the field of higher education and research output are the two vital indicators to assess the progress of any country (Iqbal, Mahmood & Iqbal, 2018). Haq and Faridi (2021) stated that there are 210 universities in Pakistan and only 14 are indexed in the Times Higher Education World University Rankings 2020. Research has been considered as back-bone for the sustainable development of the nation. A standing of any branch of knowledge has been measured by the number of quality higher educational institutions and subsequently the research output by these institutions. The researchers affiliated with Pakistan produced 1,48,678 documents from 2000 to 2019 with an average annual growth rate of 20.90 as reflected in the Web of Science database. Haq (2020) stated that Pakistan produced 9,292 documents on social sciences in 59 years and these documents gained 56,252 citations with a mean of 6.05 cite/doc. A majority of documents were written on the subjects of computer science followed by arts and humanities.

Library Information Science (LIS) or Information Management (IM) is a service-oriented profession. The basic duties of LIS professionals are to acquire, organized and disseminate the learning resources to their clientele according to the requirements of their parent institutions (Shafiq, 2007). The history of LIS education and research in the area now located in Pakistan, started long before the establishment of Pakistan, when an American Librarian, Asa Don Dickenson started a library science training course at the University of the Punjab Lahore and wrote a textbook in “Punjab Library Premier” in 1916 (Haider & Mahmood, 2007).

After the creation of Pakistan, the journal, “Modern Librarian – New Series” was launched in 1949 at Lahore but it was survived for three issues only. In the same year, Karachi Library Association was formed in Karachi and began the library science training course. Haji Muhamamd Shafi, the veteran librarian of British India migrated to Pakistan and joined the National Assembly of Pakistan as Librarian and succeeded to publish his Urdu language textbook on library science named “*Intezaam-e-Kutab Khana*” (English translation, Organization of libraries) in 1949 from Karachi. In 1956, a library expert, L.C. Key presented his reports to the Government of Pakistan regarding the improvement of libraries in Pakistan. The post-graduate course in Library Science was commenced at University of Karachi in 1956. Pakistan Library Association was formed and the inaugural of its first conference by President of Pakistan, Sikandar Mirza in January 1958 put a strong impact on the library movement of Pakistan (Haq, 2016). Pakistan Library Bulletin Now renamed as Pakistan Library & Information Science Journal (PLISJ), started its publication in 1968 under the flag of Library Promotion Bureau (LPB). This journal has been publishing regularly since that and LPB also published more than one hundred books on Library Science in Urdu and English languages. Another notable LIS journal, published by the Department of Information Management, University of the Punjab, named Pakistan Journal of Information Management and Libraries (PJIML), has been providing a platform to LIS researchers for the last two decades. The LIS departments of the Allama Iqbal Open University, Islamabad and Khushal Khan Khattak University Karak have also started publishing LIS journals. Pakistan Library Association, Pakistan Librarian Welfare Organization, and Pakistan Library Club are also publishing newsletters and journals.

The earlier Master of Library Science classes was started at the University of Karachi in 1962 and at University of the Punjab in 1974. The course of research methodology has been taught and some students opted for optional subject of writing theses (Malik & Ameen, 2017). Haider (1978) examined the theses written by the students of the University of Karachi and later Anwar (1982) analyzed the theses completed by the students of the University of the Punjab.

Slow progress was recorded in LIS research in Pakistan during the first fifty years, Asghar (1982) pointed out the factors of low research output in LIS as; lack of appropriate training, guidance, accessibility of relevant literature, encouragement, financial support, and personal interest. Anwar (1982) suggested that the student should be trained to produce articles from their theses. Usmani (1986) lamented that library science had not been recognized as a proper profession in Pakistan and this attitude put a hurdle in the promotion of research activities. Rizvi (1987) considered that a lack of trained individuals in the area of library research was the prominent obstacle in the production of research. Mahmood (1996) suggested that the National Council for Librarianship should be constituted by the Government to examine the library related issues and assigned experts to find out the suitable solution. He emphasized on refresher course for working librarians to teach them how to conduct research and further encouraged them to write and send their findings to journals.

Twelve universities are offering higher education in LIS in Pakistan, presently. The tiny segment of LIS professionals succeeds to join LIS departments as faculty. So their responsibilities are limited to teaching and learning activities. If we examine the LIS research productivity in Pakistan, the share of LIS faculty has been higher than practicing librarians. There are many reasons behind this factor; faculty members have sufficient time, strongly in-touch with contemporary LIS literature, availability of required resources, and more inclined to practical research. Khurshid (2013) stated that out of 516 internationally published LIS articles by Pakistani authors, 71% were contributed by Faculty. Siddique, et al., (2020) scrutinized the 1,305 LIS research documents produced by Pakistan in 62 years from 1957 to 2018 and the maximum of 90 documents were published in 2016.

LITERATURE REVIEW

LIS professionals have been very active in carrying out bibliometric studies for the last three decades. The evaluation of qualitative and quantitative attributes of publications data has been known as bibliometric. The assessment of the published literature helps to identify the characteristics of research productivity, authorship pattern, collaborative attitude and impact of citations on any discipline of knowledge, particular journal or group of journals, institution-wise, or country-wise. As the body of knowledge has been increasing day by day, the importance of bibliometric has also been enhancing. The findings of these kinds of studies assist the policy-makers in making critical decisions for the development (Haq & Al Fouzan, 2017).

Some of them used manual technique to draw the results others extracted the results from databases, like LISTA, LISA, Scopus, PubMed and Web of Science. The first notable study of this kind was produced by Mahmood (1996), when he was doing Postgraduate Diploma in Library Management from Haagse Hogeschool, Netherlands. He analyzed 97 documents related to library and information services of Pakistan published from 1947 to 1995 in international journals. The study used online resources to retrieve the required data. Sixty-nine documents were written by Pakistani authors and Syed Jalaluddin Haider produced a maximum of 12 documents. Inspired by this study, Khan and Samdani (1997) analyzed the 506 documents published in Pakistan Library Bulletin (PLB) from 1968 to 1997 contributed by 241 authors. Data was collected manually from the print

versions of the PLB. One-fourth of the total documents were published in English language and 91% of the documents were written by male authors. The scope of these two studies was different, one study analyzed the contribution of Pakistani LIS authors at the international level and the other dealt with the national level. Anwar and Saeed (1999) merged all LIS literature produced by Pakistani authors by using LISA-PLUS database. This study examined the 251 documents produced by 64 authors from 1969 to 1995 and the highest 57% of the documents were published in PLB. Khurshid (2013) replicated the Mahmood (1996) study, he collected the data of 516 articles published between 1957 to 2011, contributed by 72 Pakistani authors. He added the qualitative evaluation and discovered that out of 516 articles only 29% (n=151) of the articles were published in Impact factor journals. Naseer and Mahmood (2009) scrutinized the 236 articles published in PLISJ from 1998 to 2007, Warriach and Ahmad assessed the 111 documents published in Pakistan Journal of Libraries and Information Science during 1995 to 2010. Haq and AlFouzan (2019) evaluated the pattern of PLISJ's documents published from 2007 to 2018. Siddique, et al., (2020) conducted a comprehensive bibliometric study on LIS literature produced by Pakistan from 1957 to 2018. All these studies highlighted the various aspects of Pakistan LIS literature.

Jabeen (2015) presented the scientometric evaluate 18,371 documents published in 40 core LIS journals from 2003 to 2012. The data was extracted from the Web of Science database. The ratio of the single-author pattern was found on a high scale (70%) and 43% of the total LIS research was produced by the authors affiliated to the United States. The universities sector had produced more research as compared to the non-university segment.

Mittal (2011) investigated the LIS research trends in India. The data of 1,408 documents produced by Indian authors from 1990 to 2010, was obtained from LISA. The analysis of co-word occurrence identified the 4,735 descriptors. The major research trends focusing on library practice, user education and user studies. Maharana and Das (2014) examined the contribution of Indian authors in LIS research indexed in the Web of Science from 1999-2013. Indian authors produced 141 documents consisting of 1.11% of the global LIS research and stood on 13th position in the world ranking. Two-author pattern (40.71%) was found preferred collaboration pattern while 36% of papers were contributed by a single-author. M. P. Satija emerged a prolific author with five articles.

Ahmad, Sheikh and Rafi (2019) presented the quantitative investigation of LIS literature from 2003 to 2017 indexed in the Web of Science database. The growing tendency was found from 200 publications in 2014 to 450 in 2017. The majority of research (n=1453; 39%) was produced by the United States, followed by England and Canada with 215 and 198 publications respectively. The highest citation impact was received by the articles published in the *Journal of Medical Library Association*. Amongst the top-10 productive institutions, six belonged to the United States and Indiana University had been on the top and Thelwall, M. of England emerged as the most productive author with 29 publications.

Okeji (2019) studied the research output in LIS by Nigeria from 2000 to 2018. A total of 1,106 documents were identified and the highest number of documents (n=151; 13.65%) were published in 2011 and more than one-third (35%) of the research was published in Library Philosophy and Practice. The University of Ibadan was found most prolific with 195 (17%) articles, and Baro, E. Emmanuel has emerged as the most productive author with 29 articles. The analysis of authorship pattern found that the majority of work (n=527; 47.6%) was published as a single author, followed by two-author pattern (n=398; 36%). The fluctuation had been found in the number of articles after 2011.

Han, et al., (2014) measured the collaboration trends in LIS research. The study collected the dataset of 8,570 documents published in 15 core journals from 2000 to 2011. This study found that two-thirds (66%) of the total research was the result of collaboration. The collaboration pattern among the institutions located inside the country had been higher than international collaboration.

Aim of the study: The aim of this study is to evaluate the research productivity of library and information science by Pakistani authors during the year 2019.

OBJECTIVES

The comprehensive published data produced/contributed by Pakistani LIS authors during the year 2019 were collected to achieve the following five objectives of the study:

1. To highlight the productive authors with their affiliation and number of publications
2. To assess the gender and authorship patterns of contributors
3. To evaluate the institutional research output
4. To find out the preferred sources of publications
5. To examine the board area of LIS research

METHODOLOGY

The retrospective research method was applied to collect the documents produced by Pakistani LIS authors during the year 2019. Various online sources identified by Khurshid (2013) and Siddique et. al., (2020) have been used to extract the required data. The investigators' own knowledge about LIS researchers and various online academic social networking sites have also helped to get maximum coverage. The complete list of retrieved literature has been organized by alphabetical order on the basis of the full name of the first author and added as Appendix for evidence. The data has been presented in tabular form.

LIMITATIONS

The investigators try hard to get the maximum data. In spite of that, might be there is a chance that some document(s) have been left to be indexed. The LIS literature published in the Urdu and other regional languages and the unpublished theses/dissertations produced by LIS scholars have not been included.

FINDINGS

Pakistani LIS authors, including faculty, research scholar, practicing practitioners and non-resident Pakistani LIS professionals produced 154 documents from January 1st to December 31st 2019 (Appendix). A slightly less than one-third (n=97; 63%) of the total were documents published in international sources while 37% (n=57) of the items were published in locally published journals and other sources. An affirmative growth of LIS literature was found this year and there has been one new document after the interval of 2.37 days. In 154 documents four conference papers and two book chapters published internationally and four editorials, as well as one book published locally, have also been included. Twenty-five documents were contributed by non-resident Pakistani LIS authors and 16 papers were produced by three students pursuing their doctorate from China.

A total of 421 authors including multiple counts contributed to 154 documents with an average of 2.73 authors per document. As an individual and unique author, 225 names of authors were

identified. A majority of authors (n=147; 65%) have contributed one document each and thirty-eight (17%) authors contributed two documents each while 13 authors produced three papers each and 12 authors produced four papers each. Table-1 presents the list of the top 15 most productive authors having more than four papers each with their affiliation and number of papers. The primary aim of this study is to calculate the total number of documents produced by Pakistani LIS professionals during 2019, so the number of co-author's publications has been limited to their collaborative work with Pakistani LIS authors. The actual number of the publications of co-authors (e.g., Tang Zhiwei, Zheng JianMing and HinaAdeeb) has been higher. Prof. Dr. Kanwal Ameen, now Vice-Chancellor of the University of Home Economics and former chairperson, Department of Information Management, University of the Punjab, emerged as the most prolific authors with 13 publications, followed by Dr. Nosheen Fatima Warraich with 11 publications. Most of the research produced by the faculty have been collaborative research efforts with their research scholar. Amongst the top-15 authors, four authors belonged to the University of the Punjab and three authors, Muhammad Anwar, Khurshid Ahmad and Muhammad Rafi, have produced their work during their doctorate study from the universities of China. Ikram Ul Haq and Zamir Hussain Baladi, two non-resident Pakistani authors, who belonged to King Saud bin Abdulaziz University for Health Sciences produced eight and five publications respectively. Hina Adeeb is the Assistant Professor in the Department of Media and Communication Studies, University of Central Punjab, she collaborated with Dr. Muhammad Ramzan.

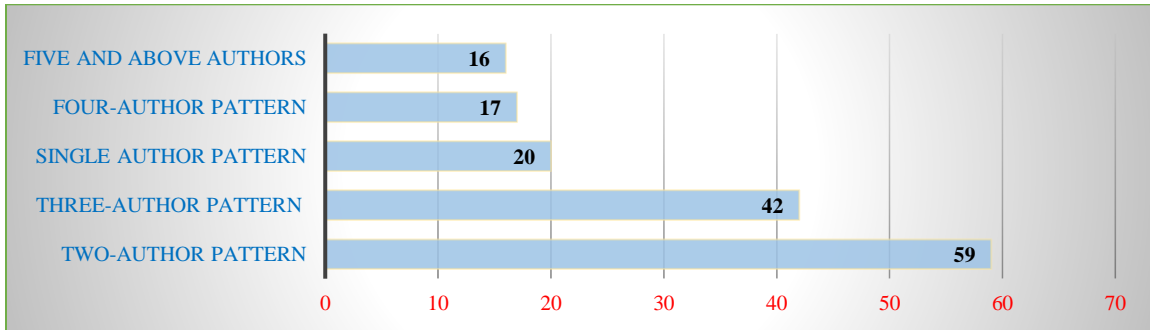
Table-1; Top 15 most productive authors with total documents (TC) in 2019

S. No.	Name of researcher	Institutional Affiliation	TC
1.	Kanwal Ameen	University of the Punjab, Lahore	13
2.	Nosheen Fatima Warraich	University of the Punjab, Lahore	11
3.	Syeda Hina Batool	University of the Punjab, Lahore	9
4.	Muhammad Anwar	University of Balochistan, Quetta& University of Electronic Science and Technology of China (UECTC)	9
5.	Muhammad Ramzan,	Information Technology University, Lahore and now in Punjab Higher Education Commission	8
6.	Ikram Ul Haq	King Saud bin Abdulaziz University for Health Sciences, Saudi Arabia	8
7.	Saeed Ullah Jan,	Khushal Khan Khattak University Karak	7
8.	SairaHanifSoroya,	University of the Punjab, Lahore	7
9.	Khurshid Ahmad,	Nanjing University, China; Now in Islamia University of Bahawalpur	6
10.	Muhammad Asif Naveed	University of Sargodha	6
11.	Muhammad Rafi	Nanjing University, China	6
12.	Tang Zhiwei	University of Electronic Science and Technology of China (UECTC)	6
13.	HinaAdeeb	University of Central Punjab, Lahore	5
14.	Zameer Hussain Baladi,	King Saud bin Abdulaziz University for Health Sciences, Saudi Arabia	5
15.	Zheng JianMing	Nanjing University, China	5

The analysis of all the authors by gender shows that the male authors consisted of 144 (64%) while the share of female authors counted 36% (n=81). The examination of authorship pattern shows that

the majority of documents (n=134; 87%) have been the result of collaborative efforts and only 13% (n=20) of the documents were published as a solo author. The two-author pattern found a most preferred (n=59; 38.31%) followed by three-author pattern (n=42; 27.27%). There were only 16 (10.38%) documents having more than four authors' collaboration (Figure-1).

Figure-1; Authorship Pattern



All the LIS/IM departments of Pakistani Universities contributed valuable literature and enhanced the body of the knowledge significantly. More than one-fourth of the literature produced by the authors affiliated with the University of the Punjab, followed by the University of Sargodha, Allama Iqbal Open University and the University of Balochistan (Table-2). Numbers of Pakistani LIS professionals serving in the Universities of Saudi Arabia, also contributed their segment in LIS literature.

Table-2; List of productive institutions with total documents (TC)

Rank	Department / Institutions	TC (%)
1.	Department of Information Management, University of the Punjab, Lahore	42 (27.27%)
2.	Department of Information Management, University of the Sargodha, Sargodha	13 (8.44%)
2.	Department of Library and Information Science, Allama Iqbal Open University, Islamabad	13 (8.44%)
3.	Department of Library and Information Science, University of the Balochistan, Quetta	12 (7.79%)
3.	Department of Library, King Saud bin Abdulaziz University for Health Sciences, Saudi Arabia	12 (7.79%)
4.	Department of Library and Information Science, University of Karachi,	10 (6.49%)
5.	Department of Library and Information Science, Khushal Khan Khattak University Karak	9 (5.84%)
6.	Department of Library, Government College University, Lahore	8 (5.19%)
6.	Information Technology University, Lahore	8 (5.19%)
7.	Department of Library, COMSATS University	6 (3.89%)
7.	Department of Library, The Aga Khan University, Karachi	6 (3.89%)
8.	Department of Library and Information Science, Islaima University of Bahawalpur	5 (3.24%)
8.	Department of Library and Information Science, University of Peshawar, Peshawar	5 (3.24%)
8.	Department of Library, Imam Faisal bin Abdulrahman University, Saudi Arabia	5 (3.24%)

One hundred and forty-seven documents published in more than fifty journals, the highest number of documents (n=35; 22.72%) were published in Pakistan Library & Information Science Journal, followed by Library Philosophy and Practice (n=25; 16.23%) and Global Knowledge, Memory and Communication (n=7; 4.54%). There were 30 journals with one publication each while 12 journals having two publications each. The detail of frequently used journals has been given in Table-4.

Table-2; List of frequently used journals

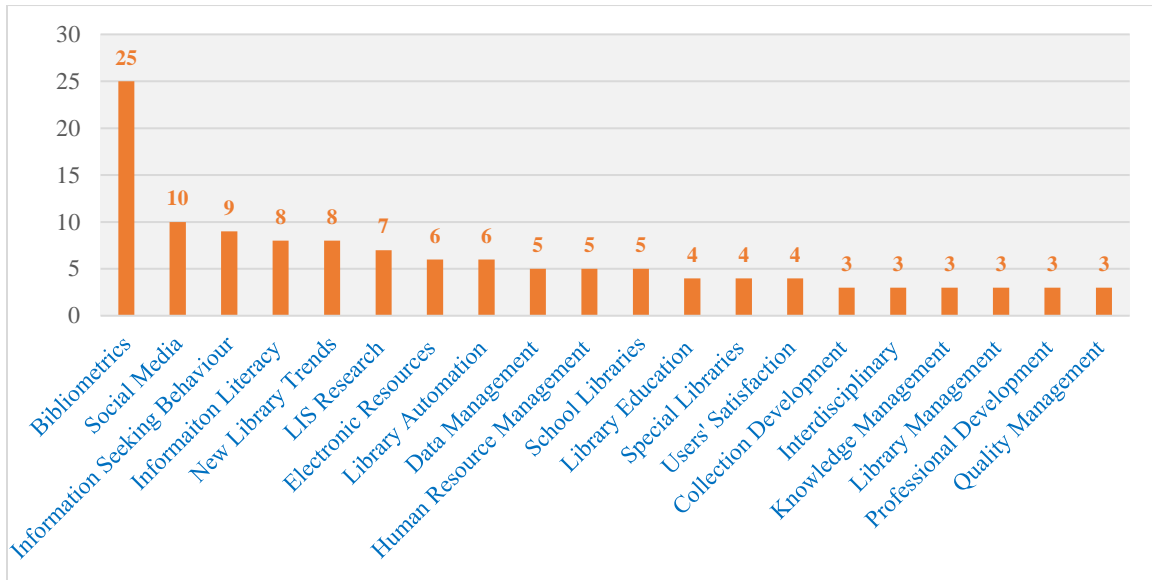
Rank	Name of Journal	TC
1.	Pakistan Library & Information Science Journal	35
2.	Library Philosophy and Practice (e- journal),	25
3.	Global Knowledge, Memory and Communication	7
4.	Information Discovery and Delivery	5
4.	International Journal of Librarianship and Information Science (IJoLIS),	5
4.	Journal of Information Management and Library Studies	5
4.	Pakistan Journal of Information Management and Libraries	5
5.	International Journal of Technical Research & Science,	3
5.	Library Hi Tech	3
6.	Aslib Journal of Information Management; Collection and Curation; Digital Library Perspectives; Information Development; International Information & Library Review; International Journal of Advanced Research; Journal of Librarianship and Information Science; Library and Information Science Research; Library Hi Tech News; Library Management; The Electronic Library; The Serials Librarian;	2 Documents Each
7.	30 Journals	1 Document Each

Figure-2 identified the 20 most frequently used research areas. The bibliometrics studies (n=25) found the most preferred research area with 25 documents, followed by the usage of different types of social media in library services and operations (n=10), and information seeking behavior (n=9).

DISCUSSION

Pakistani authors have been very active in conducting and writing LIS research in 2019. The research -culture has been flourishing vividly. A total of 154 documents found, almost one new document has been published every third day. The majority of documents (n=97; 63%) were published internationally. The LIS faculty members are more tending to publish their research in foreign origin and impact factor journals. There are three possible reasons behind this factor; firstly, there is a paucity of quality LIS journals in Pakistan, secondly, local journals took a long time to process the document, and lastly, for the document published internationally and impact factor journal help to get promotion and reorganization. The editorial boards of local LIS journals try to increase the frequency of publication from annually to quarterly and reduce the article processing time to encourage the local authors. Out of 13 articles contributed by Dr. Kanwal Ameen, 12 were published in international journals.

Figure-2; Frequently used areas of LIS research



These documents have been written / contributed by 421 authors with an average of 2.73 authors per document. About two-third percent (n=147) of the authors contributed one document each and only 15 authors produced or contributed more than four documents each. Dr. Kanwal Ameen stood on the first rank in research output. It is interesting to note that the top three authors are females and belonged to the same department/university. The examination of authorship pattern exposed that collaborative research has been on a high scale, as 87% of the documents was contributed by multi-author pattern. Only 20 (13%) documents were contributed by a single author pattern.

The University of the Punjab is the oldest and largest university in the Pakistan. All the LIS faculty members are the Ph.D. holders. More than one-fourth (27%) of the documents were produced by authors affiliated with this university. University of Sargodha and Allama Iqbal Open University stands on the second rank.

PLISJ secured first grade with 35 publications in frequently used sources of publications. This journal has been publishing regularly since 1968 on a quarterly basis and indexed in Library Information Science Technology Abstracts (LISTA). A Scopus-indexed, American-based electronic journal, Library Philosophy and Practice stood in the second position with 25 documents. There were thirty journals with one document each. The majority of documents were written on the theme of bibliometrics, followed by social media and information seeking behavior.

It is encouraging that Pakistani LIS authors have been doing bibliometrics studies on medical, engineering, and other social sciences subjects. There is an ample opportunity for LIS professionals working in special libraries to conduct the bibliometric studies on the specific subject, they serve. Those who are working in Law Libraries can perform bibliometric analysis of law literature, similarly, the professionals serving in the Agriculture universities can do these kinds of studies. By doing this, they not only assist their parent organization but also enhance the image of the LIS profession.

CONCLUSION

The LIS research has been directly linked with the overall development of the country, if the LIS professionals have already conducting and publishing research, they can assist their clientele in a befitting manner. The beginning of LIS doctorate programs and the providing of electronic resources through the National Digital Library of Higher Education Commission in Pakistani universities have a positive impact on the research output. There is a need to motivate the practicing information professionals that they should come forward to participate in the research process to improve LIS services. Haq (2020) examined the social science research in Pakistan and draw the results that the top three most productive authors belonged to the LIS profession in Pakistan. The findings of the present study are very encouraging that Pakistani authors produced 154 documents in one year and the majority of research published internationally. The research collaborative efforts inside the country are on a high scale, there is a need to enhance collaboration with international authors and between Pakistani and non-resident Pakistan.

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APPENDIX

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